

1. A composite cover (10) with an electrical bridge (22), comprising:
a base component (12);
a housing (14) mounted to the base component (12) defining an enclosure (16) therein, the housing (14) made of non-conductive material;
at least one electrical connector (20) integrally formed with the housing (14), the at least one electrical connector (20) including one or more electrical leads (22) that extend through the housing (14) for allowing electrical energy to pass from an electrical source outside the housing (14) to an electrical device (18) within the enclosure (16), thereby forming an electrical bridge (22) between the electrical source and the electrical device (18), wherein the electrical bridge (22) does not extend along an exposed surface of the housing (14).
2. The cover (10) according to Claim 1, further comprising a seal (17) disposed between the base component (12) and the housing (14).
3. The cover (10) according to Claim 1, wherein the housing (14) made of non-conductive material.
4. The cover (10) according to Claim 1, wherein the cover (10) comprises a valve cover (30) for an internal combustion engine of a vehicle.
5. The cover (10) according to Claim 4, wherein the base component (12) comprises a cylinder head of the internal combustion engine.
6. The cover (10) according to Claim 1, wherein the cover (10) comprises an oil pan (50).
7. The cover (10) according to Claim 6, wherein the housing (14) comprises a bottom pan flange (54).
8. The cover (10) according to Claim 7, further comprising a premold (68) positioned along a periphery of the bottom pan flange (54).

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9. The cover (10) according to Claim 7, further comprising a gasket (56) disposed between the bottom pan flange (54) and a fluid filter (52).

10. The cover (10) according to Claim 6, wherein the base component (12) comprises a transmission.